RECLAMATION
Managing Water in the West

Draft Environmental Assessment – Five-Year Reallocation of Refuge Water Supplies From Sacramento Valley National Wildlife Refuges to San Joaquin Valley Wildlife Refuges

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Mid-Pacific Region

U.S. Department of the Interior
Bureau of Reclamation

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Introduction

In 2010, the Bureau of Reclamation approved the reallocation and delivery of up to 8,000 acre-feet (af) of Level 2 and Incremental Level 4 water (collectively referred to as refuge water supplies) from Sacramento Valley National Wildlife Refuges (SVNWRs) to San Joaquin Valley National Wildlife Refuges, State Wildlife Areas, and the private Grassland Resource Conservation District (collective referred to as the San Joaquin Valley Wildlife Refuges [SJVWRs]) as named in the Central Valley Project Improvement Act of 1992 (CVPIA), (106 Stat. 4706). These refuge water supply reallocations were approved for the seasonal period of transfer (July through September) allowed under the then prevailing biological opinions (BOs) issued by the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (Service). However, to provide greater benefit to SJVWRs with late season water, it is proposed to reallocate and deliver up to 10,000 af of SVNWRs' refuges water supplies outside the water transfer period allowed by the BOs so long as those deliveries are unlikely to adversely affect federally listed species.

The water made available by the SVNWRs would be delivered to the SJVWRs according to a schedule to be determined by the needs of these refuges and applicable operational and regulatory constraints on pumping water from the Sacramento-San Joaquin Bay Delta (Delta). This temporary water reallocation would be undertaken pursuant to, and would be in full compliance with, CVPIA Sections 3406(b)(3) and 3406(d) concerning the provision of secure water supplies for the refuges.

Activities associated with the proposed action for the five year period 2012-2016 have been covered in previous environmental documents. These include:

- *Central Valley Project Improvement Act (CVPIA) Final Programmatic Environmental Impact Statement (PEIS) October 1999.*
- *Final NEPA Environmental Assessment and CEQA Initial Study Refuge Water Supply Long-Term Water Supply Agreements, Sacramento River Basin January 2001.*
- *San Joaquin Basin Action Plan and North Grasslands Area Conveyance Facilities Final Environmental Assessment/Initial Study December 1997.*
- *Final NEPA Environmental Assessment and CEQA Initial Study Refuge Water Supply Long-Term Water Supply Agreements, Tulare Basin January 2001.*
- *Conveyance of Refuge Water Supply Environmental Assessment and Initial Study, South San Joaquin Valley Study Area, Kern National Wildlife Refuge, Pixley National Wildlife Refuge October 2003.*

- Service's 2008 and NMFS 2009 *Biological Opinions for the Coordinated Operations of the Central Valley Project (CVP) and the State Water Project (SWP)* (BOs).

In addition, the potential effects of such water movements were addressed in Reclamation's February 2010 *Final Environmental Assessment, 2010-2011 Water Transfer Program*, a program physically equivalent to, but legally distinct from, the proposed reallocation of refuge water supplies from the SVNWRs to the SJVWRs.

Purpose and Need

The purpose of the proposed temporary action is to deliver refuges water supplies made available by the SVNWRs to the SJVWRs south of the Delta to maintain wetlands during years when water deliveries are restricted in the San Joaquin Valley.

The need for the proposed action arises from the combination of a shortage of willing sellers of water in the San Joaquin Valley and CVPIA budgetary constraints, leaving the SJVWRs with insufficient water to flood wetlands for seasonal and migrant waterfowl.

Alternatives

Proposed Action

The proposed action is for Reclamation to annually reallocate up to 10,000 af of refuge water supplies from the SVNWRs to the SJVWRs in response to requests from the Interagency Refuge Water Management Team (IRWMT). The water would be made available through changes in SVNWRs' operations that are within the range of options normally used. The water would be delivered through existing means of diversion and conveyance during periods allowed by the applicable agreements and the BOs.

The proposed action would reallocate refuge water supplies in the water years 2012-2016 (March 1, 2012 – February 28, 2016). Water intended for delivery to the SVNWRs to the SJVWRs with the amount of water actually reaching the SJVWRs being that amount less normal Delta carriage water requirements and conveyance losses. The water would be moved under the prevailing guidelines for water transfers. That is, it would be moved in compliance with the BOs and when the Delta is in a "balanced" state per the Coordinated Operations Agreement

between the Central Valley Project (CVP) and State Water Project (SWP). This water would be moved on a space-available basis "over and above" the CVP water (municipal & industrial, agricultural, and normal refuge Level 2) that CVP operations would be pumping at any given time.

The refuge water supply made available by the SVNWRs would be reallocated to specific SJVWRs by the IRWMT.

In recognition of the continually evolving constraints on operations in the Delta, approval of these late-season refuge water supply reallocations would be predicated upon the ability of deliveries, apart from their timing, to comply with the BOs and other judicial or regulatory guidance then in effect. Determination of such compliance would be made on a case-by-case basis by the Reclamation, NMFS, Service, and State staff responsible for making day-by-day adjustments to operations in the Delta.

It is also understood that movement of this relatively small amount of refuge water would not mean that movement of larger volumes of water would necessarily be feasible in compliance with the then operative BOs.

No Action Alternative

Under the no action alternative, Reclamation would not agree to the reallocation and would not deliver water to the SJVWRs.

Affected Environment and Environmental Consequences

Physical Resources

SVNWRs that receive refuge water supplies consist of flat, diked areas devoted primarily to wetlands comprised of open ponds or shrub and emergent herbaceous wetlands, with portions used for grain production to provide forage for wintering waterfowl. The refuges receive water mainly from the Glenn-Colusa Canal and occasionally from the Tehama-Colusa Canal. They discharge water to the Colusa Basin Drain (Drain), which empties into the Sacramento River at Knights Landing, over 50 miles to the south.

Both diversion points are downstream of the southernmost temperature compliance point for the Sacramento River, eliminating incremental change in temperature in the river as a concern. Additionally, changes in flows between the diversion points and Knights Landing are not likely to be a concern. Flow

increases, should they occur, would be as high as 6 percent of the then extant flows. Even these relatively high percentage increases, however, would be too small to noticeably affect sediment movement, which occurs mainly during high flows. They would provide a modest, but useful, increase in the water volume available to fish. Thus, the river temperatures and flows would, in principle, be expected but would be too small to be noticeable, although, if measureable, would be favorable to the fisheries.

Similarly, no noticeable change is to be expected in the Drain as water elevations in the Drain are maintained to very narrow tolerances by careful use of check dams during the dry season. Moreover, the water that would be reallocated has already been conserved by altered refuge management earlier in the year, so there would be no change in flows in the Drain in response to this late-season reallocation.

Changes in flows within the Delta, as in the river, would be too small to be noticeable, but would be incrementally beneficial and well within the limits allowed by the applicable agreements and regulations governing water management in the Delta.

Effects in the recipient areas would be confined to the diked wetlands or existing grain fields on the SJVWRs where the water would serve to maintain wetlands for migratory waterfowl habitat. The effect would be to maintain somewhat normal conditions of the wetlands to be watered that would otherwise be dry.

No change would be required in the physical infrastructure needed to move and use the refuge water supplies.

Biological Resources

The principal species of concern in both SVNWRs and SJVWRs are migratory waterfowl using the Pacific Flyway, which overwinter in substantial numbers in the Central Valley. In addition, the federally listed giant garter snake (GSS) and several listed plants are a species of concern at the SVNWRs. None of these species would be adversely affected by the proposed reallocation of refuge water supplies as the refuge staff has taken care to maintain the quality of the habitat on the SVNWRs, while conserving water that could be used at refuges in more dire straits in the San Joaquin Valley. The proposed changes allow for maintenance of the wetlands at the SVNWRs while providing water for several thousand acres of wetlands at SJVWRs that would otherwise be dry in years with restricted water deliveries.

A somewhat larger number of fish species of special concern occur in the Sacramento River and the Delta but all changes would be within the range of variation normally occurring, and the changes would be within the bounds set by the BOs. Indeed, while the changes would be infeasible or, at best, difficult to

measure, all fish in the Sacramento River would be incrementally benefited by the small increase in the flows from the Hamilton City diversion south to Knights Landing.

Cultural Resources

No negative impacts to cultural resources are anticipated because the land use would remain unchanged in both the SVNWRs and SJVWRs. No construction or other land use changes would be caused by the proposed provision of water to maintain existing operations. The proposed action would, in fact, be to maintain the status quo.

Socioeconomic Resources

Use of the SVNWRs would not be impaired, and it is possible, depending on decisions by refuge management, that hunting would be improved on or near the SJVWRs, helping the local economy.

Indian Trust Assets

No Indian Trust Assets (ITAs) will be affected by the proposed action, which will simply maintain an existing operation in support of natural resources. The nearest ITA is the Colusa Rancheria, approximately 3 miles from the Colusa National Wildlife Refuge, the nearest SVNWR.

Cumulative Impacts

The proposed temporary service contract will not result in any additions to irrigated lands or otherwise induce land-use changes. Rather, its intended effect is to prevent deterioration of existing wildlife habitat at SJVWRs.

Consultation and Coordination

The Service was notified of Reclamation's determination that the proposed action was not expected to adversely affect the GGS. The proposed action will provide a cost-effective way to provide water to maintain habitat quality in a relatively broad corridor between the SVNWRs, and the Drain is a benefit for the GGS, leaving existing conditions intact. Concurrence with Reclamation's determination that the proposed action is unlikely to adversely affect listed species was requested and obtained from NMFS and the Service.